

# Investments

## 1. Course Description

This course exposes students to important theories and concepts in investments and financial markets, with emphases on portfolio theories and security valuation. Specific topics include overview of financial markets, the portfolio selection theory, asset pricing theories, bond valuation, yield curve, stock analysis and valuation, the introduction of options and futures, portfolio performance analyses, etc.

By requiring students to do team projects, the students are expected to understand the importance of business ethics to financial industries. Taking the LIBOR manipulation case for an example, the students will understand that rigging of borrowing and lending rates has grave consequences.

## 2. Course Objectives and Requirements

**1. Course Objectives :** The course seeks to develop understanding of key investment theories and concepts within the students. After this course, the students may think as a rational portfolio manager, and begin to systematically tackle the investment problems. Even if one does not become an investment professional in the future, he (she) can benefit from this course by becoming more aware of his (her) personal finance. The student is also expected to appreciate the value of professional integrity.

### **2. Requirements :**

(1) Students are required to master the basic knowledge about capital market and understand the basic theories about the relationship between risk and return, to grasp the investment theories and the concepts about term structure and fixed-income securities, to understand the valuation models. The course trains their ability to treat the potential investment as a whole portfolio and making the investment decision more rationally.

(2) Students should finish the exercises and assignments on time.

(3) Students should prepare and read the designated materials before or after each

lecture.

### **3. Course Arrangement**

Course name		Investments	Total Credit Hours	36
unit	Credit hours	Contents	Preparation of class and reading materials	Cases
1	2	<b>Session 1:</b> Overview of financial markets, trading mechanisms and stock indexes	BKM Chapter 1-3 EvaluateHedgeFunds.pdf BeijingLoosensGripInterestRates.pdf CSRC_AnnualReport2012.pdf, Section 2 HasbrouckJF.pdf	
2	6	<b>Session 2: Theory of Risk and Return</b> 1) The portfolio selection theory 2) CAPM theory 3) APT theory	BKM 5, 6, 7, 8 The investment note by J. Cochrane (for some background mathematics) Chapter 2 in George Pennachi Chapter 7 & 11 in Craig Holden BKM 9 Chapter 3 in George Penacchi Chapter 9 in Craig Holden Fama and French 2003 Karl Sigman's note BKM 10 Chapter 3 in George Penacchi J. Cochrane, Chapter 9. APT note by W. Goetzmann Hou, Karolyi and Kho 2011 Barra on Campus PDF	Project 1 on the portfolio theory Project 2 on testing CAPM Case 1 on long-term capital management corp.
3	4	<b>Session 3: Market efficiency &amp; Behavioral finance</b>	BKM 11, 12 Market efficiency note by W. Goetzmann Fama and French (1996) LoMamayskyWang00.pdf EventStudy_Mackinlay.pdf SAC_InsiderTrading.pdf Barberis 2003.pdf JayRitter_BehavioralFiannce.pdf	Case 2 on LIBOR manipulation
4	6	<b>Session 4: Theory of Term</b>	BKM 15, 16	Project 3 on bond duration

		<b>Structure and Fixed-Income Securities</b> Bond characteristics; Corporate Bonds (callable, convertible, puttable, floating rate, preferred stock); Securitization; Bond pricing; Term structure of Interest rate; Managing bond portfolio	Chapter 33 of Aswath Damodaran Chapter 2 & 4 Craig Holden	Project 4 on yield curve
5	4	<b>Session 5: Valuation Models:</b> Approaches to valuation; Discount Cash Flow (DCF) Valuation; Economic Value Added (EVA); Relative valuation; Option valuation; Macro analysis and financial statement analysis	BKM 18 Analyst_warns_on_Enron.pdf BKM 17, 19 EconResearch_GoldmanSachsChina_20130613.pdf GlobalMarketOutlook_StandardChartered_20130904.pdf China-Capital-Markets-FTSE-201106.pdf	Project 5 on stock valuation Case #3: valuation for Baidu.com
6	4	<b>Session 6: Mutual Fund Asset Management</b> (Asset management institutions, structure in the industry, Forms, models in China); Mutual Fund(Organization, Advantage and disadvantages, open-ended & close-ended fund, ETF, LOF, frequently used terms );	BKM 4, 24 Wermers 2011.pdf (a review paper on portfolio evaluation)	
7	6	<b>Session 8: Futures and options</b> Introductions to derivatives, valuation, trading strategies for futures and options.	BKM 22 Chapter 34 of Damodaran Chapter21 of Craig Holden BKM 20, 21 Chapter19 of Craig Holden Chapter 5 of Damodaran LIFFE guide to option strategies.pdf	Project 6 on futures Project 7 on options
8	2	<b>Session 9: Overview of Chinese</b>		Carl E. Walter (2014)

		capital market		Carpenter Lu Whitelaw (2014) China-Capital-Markets-FTSE-201106
9	2	exam		

## 4. Teaching Methods

Lectures, case analyses and projects.

## 5. Learning Outcomes Expected

Category	Learning Outcomes
Master of Knowledge	<ol style="list-style-type: none"> <li>1. To understand the financial market, especially the capital market;</li> <li>2. To know the tradeoff btw. risk and return and to grasp the concept of portfolio investment theory and CAPM, APT, etc.</li> <li>3. To understand the concept of term structure and fixed-income securities, as well as the pricing of bonds;</li> <li>4. To understand and to be able to apply the valuation models;</li> <li>5. To understand the importance of the business of asset management, to know the structure and types of mutual funds;</li> <li>6. To grasp the structure and categories of securitization</li> <li>7. To know the Chinese capital market and how foreigners can invest in China</li> <li>8. Other topics such as PE, Project Finance, etc.</li> </ol>
Intellectual abilities learned	<ol style="list-style-type: none"> <li>1. To improve the ability of analysis on the practical investment through the valuation methods;</li> <li>2. To cultivate the prospective view and the interest on the academic research on the capital market;</li> <li>3. To open up the view to the classic theories of investment, such as portfolio theory, CAPM, APT, etc., but also start the topic about the innovative financial instruments, such as securitization;</li> <li>4. To form the habit of thinking of investment from different aspects, including micro and macro aspects;</li> </ol>
Practical skills learned	<ol style="list-style-type: none"> <li>1. To improve the ability of reading and understanding the reports and to grasp the most important information for investment decision making;</li> <li>2. To cultivate the ability of finding and analyzing the potential investment target;</li> <li>3. To improve the ability of forecasting the tendency, to become sensitive to the change of the market;</li> </ol>
Personal competences and characters Cultivated	<ol style="list-style-type: none"> <li>1. To help the students understand more deeply about the practice of investment;</li> <li>2. Through group discussion, to improve the sense of cooperation and the ability of meeting the social requirement;</li> <li>3. To encourage the students to express their own opinions during the case discussion, in order to improve the ability of innovative thought.</li> <li>4. To let international students know more about Chinese capital market and how the foreigners can invest in it.</li> </ol>

## 6. Performance Evaluation: Means & Ratio

Evaluation Means	Ratio ( % )	Relation to the Intended Learning Outcomes
Team and individual assignments	20	Evaluated on the ability of solve practical problems (i.e., computational projects or cases), and the ability to effectively present the results before class.
Attendance and Engagement	10	Evaluated on attendance records, and also the willingness and effectiveness in participation of class discussions.
Exam	70	Evaluated on the degree of mastering basic concepts and important theories as outlined in the course syllabus. These include the trading mechanism of financial markets, the portfolio selection and asset pricing theories, bond valuation and interest rate yield curves, stock valuation, options and futures, portfolio performance analyses.

## 7. Textbook, References and Reading Materials

### 1) Textbook

Essential

[1] Bodie, Zvi, Alex Kane, and Alan J. Marcus, 2011. Investments (McGraw-Hill/Irwin, New York).

With online supporting materials

[http://highered.mcgraw-hill.com/sites/0073530700/information\\_center\\_view0/](http://highered.mcgraw-hill.com/sites/0073530700/information_center_view0/)

This textbook is reprinted by China Machine Press and is cheaper. It can be found on the website, <http://www.cmpbook.com/stackroom.php?id=30012>.

Optional

[2] Holden, Craig W., 2012. Excel modeling in investments (Pearson, Boston).

A Chinese translation is available from China Machine Press, 2010, ISBN 9787111305873

[3] Damodaran, Aswath, 2012. Investment valuation: Tools and techniques for determining the value of any asset (Wiley, Hoboken, N.J.).

with Online supporting materials

[http://pages.stern.nyu.edu/~adamodar/New\\_Home\\_Page/Inv2ed.htm](http://pages.stern.nyu.edu/~adamodar/New_Home_Page/Inv2ed.htm)

[4] Cochrane, John H., 2005. Asset pricing (Princeton University Press, Princeton, N.J.).

## **2) Online resources**

[1] <http://www.sse.com/Home/>

[2] <http://www.szse.cn/main/en/>

[3] <http://www.chinamoney.com.cn/en/index.html>

[4] <http://www.pbc.gov.cn/publish/english/963/index.html>

[5] [http://www.csrc.gov.cn/pub/csrc\\_en/](http://www.csrc.gov.cn/pub/csrc_en/)

## **3) Periodicals and Magazines**

[1] Journal of finance

[2] Review of financial studies

[3] Journal of financial economics

## **Appendices**

1. The course PPT

2. Case material

3. Other teaching material (such as reading materials, the articles)